

EFFECT OF RETAINED SALT ON ADHESION OF EPOXY



REMOVAL OF ABSORBED AND RETAINED SALTS FROM METAL ALLOYS BEFORE APPLYING DEVCON EPOXY

Metals exposed to sea water or other salt solution, will have a level of absorbed salt retained in the metal that if not removed will cause blistering between the layers of the metal and the epoxy coat causing the epoxy to release and peel from the metal surface. The following diagram demonstrates this.

Moisture Passes Through the Epoxy Coating by Osmosis Caused by Salt Retention



Grit-blasting or Wire Brushing alone will not remove salt which has been absorbed into the metal. A combination of Grit-blasting, High-pressure-Water-Blast and or Boiling the Metal Parts is required to sufficiently remove the retained salt. Depending on the type of metal Steels, Cast Iron or Alloys of Bronze, Salt Removal might require several treatments to get the salt levels below accepted levels. Leave the treated metal overnight to allow any salts in the metal to “sweat” to the surface. Repeat treatments to “sweat out” all soluble salts. Perform chloride or sodium contamination test to determine soluble salt content (should be no more than 40ppm/<30 μS/cm). The Bresle Patch Test is the most accurate test method. See Below: